

REMARKS

Applicants have amended their claims in order to further clarify the definition of various aspects of the present invention, and so as to simplify and facilitate proceedings in connection with the above-identified application. Specifically, Applicants have amended claim 1 to recite that the member is an extruded frame member; to recite that the recessed portion has a side face and a bottom face; and to recite that the extruded frame member is adapted to have another extruded frame member mounted on the bottom face of the recessed portion of the extruded frame member and to have this another extruded frame member abutted thereto, with a gap formed between the side face of the extruded frame member and an end portion of this another extruded frame member, and wherein the friction stir welding is carried out by inserting the rotary tool in the another extruded frame member in addition to into the raised portion.

Applicants have amended claim 2 to recite that the hollow frame member includes a first hollow frame member having the specified plates, with the first plate of this first hollow frame member having a recessed portion in a side of an outside of the first plate at an end portion of the first plate, this recessed portion having a side face and a bottom face; with a raised portion of the first hollow frame member in the outer side of the first plate, the first hollow frame member being adapted to have a second hollow frame member mounted on the bottom face of the recessed portion of the first hollow frame member and to have the second hollow frame member abutted thereto with a gap formed between the side face of the first hollow frame member and an end portion of the second hollow frame member, and wherein the friction stir welding is carried out by inserting the rotary tool in the second hollow frame member in addition to into the raised portion.

Claim 4 has been amended to recite that the third plate of the first hollow frame member has a thickness, and to recite that the face from an apex of the raised portion to the bottom face of the recessed portion is positioned within an extension of the thickness of the third plate. Claim 6 has been amended to dependent on claim 3, and each of claims 5 and 6 has been amended to recite that the face from the apex of the raised portion to the bottom face of the recessed portion is positioned at an extension of a center of the thickness of the third plate. Claims 7-11 have been cancelled without prejudice or disclaimer.

In addition, Applicants are adding new claims 12-24 to the application. Claims 12 and 13, dependent respectively on claims 2 and 12, respectively recites that the first hollow frame member and the second hollow frame member are extruded frame members.

Claim 14 defines an extruded frame member structural body adapted to be used in a friction stir welding, including the member according to claim 1, which is the extruded frame member, and the another extruded frame member (also recited in claim 1), and defines positioning of these two extruded frame members. Claim 15 also defines a hollow frame member structural body adapted to be used in a friction stir welding, including the first and second hollow frame members recited in claim 2, with positioning of these first and second hollow frame members also being defined. Claim 16, dependent on claim 15, recites that each of the first and second hollow frame members is an extruded frame member. Claims 17 and 21, dependent respectively on claims 16 and 15, recite subject matter expressly set forth in claim 3; claims 18 and 22, dependent respectively on claims 17 and 21, recite subject matter expressly set forth in claim 4; claims 19 and 23, dependent respectively on claims 18 and 22, expressly set forth subject matter expressly recited in claim 5; and claims 20

and 24, dependent respectively on claims 17 and 21, expressly recite subject matter expressly set forth in claim 6.

Applicants respectfully traverse the rejection of their claims under the second paragraph of 35 USC 112, as set forth in Item 5 on page 3 of the Office Action mailed April 29, 2005, particularly insofar as this rejection is applicable to the claims as presently amended. Thus, claim 2 has been amended to recite that the raised portion projects to the outer side in the thickness direction from the outer side of the first plate, the outer side being previously defined in connection with the opening of the recessed portion, and the recitation of "a side of another end" of the first plate, with respect to location of the raised portion, has been deleted. It is respectfully submitted that claim 2 as presently amended clearly sets forth location of the raised portion, and is consistent with the understanding by the Examiner as set forth in lines 6 and 7 of Item 5, on page 3 of the Office Action mailed April 29, 2005.

Moreover, the recitation of "at another end side of the first plate from a center in a thickness of the third plate" has been deleted from claim 6, and in its place it is recited that the face of the apex of the raised portion is positioned "within an extension of a center of the thickness of the third plate", claim 5 being amended consistently therewith. As is clear, illustratively and not to be limiting, in Fig. 7, the vertical face of raised portion 37a is within a extension of the thickness of plate 36 of the panel 31 (the thickness direction being a direction parallel, e.g., to plate 33). It is respectfully submitted that the present claims are sufficiently clear, with respect to the recited structure, so as to satisfy the requirements of the second paragraph of 35 USC 112.

As can be seen in the foregoing, as well as from a full review of the presently amended claims, Applicants have amended their claims in a bona fide attempt to

overcome all issues remaining under the second paragraph of 35 USC 112. If the Examiner is of the opinion that any issues remain, the Examiner is respectfully requested to contact the undersigned so as to work out agreeable language in the claims. The Examiner is thanked in advance for cooperating with this request.

Applicants respectfully submit that all of the claims presented for consideration by the Examiner patentably distinguish over the teachings of the reference applied by the Examiner in rejecting claim 1 in the Office Action mailed April 29, 2005, that is, the teachings of Japanese Patent Document No. 60-166177, under the provisions of 35 USC 102 and 35 USC 103.

Initially, it is noted that the Examiner did not reject claims 2-11 on prior art grounds. In view thereof, it is respectfully submitted that present claims 2-6, 12, 13 and 15-24 clearly patentably distinguish over the teachings of the applied prior art..

As for the remaining claims (claims 1 and 14), it is respectfully submitted that the applied reference would have neither taught nor would have suggested such a member as in the present claims, which is an extruded frame member, the extruded frame member being adapted to have another extruded frame member mounted on the bottom face of the recessed portion thereof and to have this another extruded frame member abutted thereto, with a gap formed between the side face of the abutted extruded frame members, and wherein the friction stir welding is carried out by inserting the rotary tool in the another extruded frame member in addition to into the raised portion. See claim 1.

Moreover, it is respectfully submitted that this applied reference would have neither disclosed nor would have suggested such extruded frame member structural body as in claim 14, having both the extruded frame member and the another

extruded frame member as discussed in the immediately preceding paragraph, with positioning of these extruded frame members as in claim 14.

Through use of the extruded frame member and extruded frame member structural body as in claims 1 and 14, positioning and friction stir welding of frame members is facilitated, and such extruded frame members can easily be fabricated.

Japanese Patent Document No. 60-166177 discloses a technique to provide a fit welding between different kinds of metals. This patent document discloses, for example, welding two members 11 and 12, one being of SUS316 (having a melting point of about 1,500°C) and another of S20C (having a melting point of about 1,300°C). The member having the higher melting point has a projection portion 14, with the two members being welded using, e.g., electron beam welding. During the welding, the member of lower melting point is fused initially, and next the member having a higher melting point is fused. With fusing of the member of higher melting point, the members unite with an alloy formed thereby. The object of the applied Japanese patent document is to provide a welding method of different metals, wherein a stress crack does not occur between the different metals.

It is respectfully submitted that the applied Japanese patent document is primarily concerned with electron beam welding, which of course is clearly different from friction stir welding in which the frame member according to the present invention is adapted to be used. It is respectfully submitted that this reference, emphasizing the use of different materials for the two members, would have neither taught nor would have suggested the frame member or structural body according to the present invention, adapted to be used in friction stir welding as recited in the present claims, particularly wherein such frame members are extruded frame members.

The contention by the Examiner that the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art, set forth on page 4 of the Office Action mailed April 29, 2005, is noted. However, it is respectfully submitted that the present claims do not merely recite an intended use, but rather recite structure adapted to be used in a specified manner. It is respectfully submitted that the Examiner has not established that the structure as described in the applied Japanese patent document is adapted to be used as recited in the present claims.

In view of the foregoing comments and amendments, reconsideration and allowance of the claims presently in the application are respectfully requested.

Applicants request any shortage of fees due in connection with the filing of this paper be charged to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (case 503.35255VX5), and credit any excess payment of fees to such Deposit Account.

Respectfully submitted,
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